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Control, Logophoricity, and Harmonic Modality
in Gengbe Desire Reports

1 Introduction

(1)   MOOD:
       a. SENTENCE MOOD: declarative vs. interrogative vs. imperative
       b. VERBAL MOOD: indicative vs. subjunctive

Portner (2004) advances a theory of sentence mood underpinned by type-theoretic distinctions:

(2)   a. Declarative → proposition (added to Common Ground)
       b. Interrogative → set of propositions (added to Question Set)
       c. Imperative → property (added to Addressee's To-Do List)

This talk: Show that verbal mood can also be fruitfully studied from a type-theoretic angle.

More specifically: JUSSIVE-marked clauses in Gengbe (which are distributionally similar to Romance subjunctive clauses) are PROPERTY-DENOTING, as evidenced by their interaction with antecedent choice for logophoric pronouns.

Gengbe (also known as *Gen* or *Mina*) is a Niger-Congo language closely related to Ewe and spoken in southern Togo and Benin. According to Ethnologue, it has 278,900 speakers worldwide.

Data reported here were collected via elicitation sessions at Indiana University with Gabriel Mawusi (a native Gengbe speaker from Batonou, Togo). These sessions were conducted by Samson Lotven and supported by Professor Sam Obeng.

(3)   **Roadmap:**
       a. Section 2: Core data and puzzles
       b. Section 3: The proposed solution in three stipulations
       c. Section 4: Revisiting the three stipulations
       d. Section 5: Harmonic modality?
       e. Section 6: Conclusions

Abbreviations used in glosses: ACC = accusative, COMP = complementizer, EXH = exhortative, INDIC = indicative, JUSS = jussive, IMP = imperative, LOG = logophor, PL = plural, POT = potential, PRM = promissive, SBJV = subjunctive, 1/3SG = 1st/3rd-person singular

2 The core data and puzzles

At first glance, *jè* seems to behave like an ordinary logophor: It must be bound by an attitude holder, and multiple embedding of attitudes gives rise to ambiguity in antecedent choice (cf. Clements 1975):

(4)   **Kòfí**$_1$ bé **Ámá**$_2$ ká̧ḍóédʒí [bé   **jè**$_{1/2/*3}$ dù nű].
      Kofi say Ama believe COMP LOG   eat thing
      'Kofi said Ama believes that he/she (= Kofi/Ama) ate.'

Core puzzle: When *jè* is embedded under *dʒí* 'want', mood choice interacts with antecedent choice:

(5)   Kòfí$_1$ bé **Ámá**$_2$ **dʒí** [bé   **jè**$_{*1/2/*3}$ **lá**   dù nű].
      Kofi say Ama want COMP LOG   POT eat thing
      'Kofi said Ama wants to eat.'   want+LOG+POT → CONTROL

(6)   **Kòfí**$_1$ bé Ámá$_2$ **dʒí** [bé   **jè**$_{1/*2/*3}$ **nɛ̋**   dù nű].
      Kofi say Ama want COMP LOG   JUSS eat thing
      'Kofi said Ama wants him (= Kofi) to eat.'   want+LOG+JUSS → OBVIATION

      (and similarly for: *wɔ̀súsú* 'intend', *dʒèàgbàgbá* 'try', *lɔ̌* 'agree', *fjɛ̀dʒɔ̀gbè* 'pledge')

Subsidiary puzzle #1: When the subject under *dʒí* 'want' is a full-NP, only *nɛ̋* is grammatical:

(7)   *Kòfí bé Ámá **dʒí** [bé   **Àkú lá**   dù nű].
      Kofi say Ama want COMP Aku POT eat thing
      Intended: 'Kofi said Ama wants Aku to eat.'   want+full-NP+POT → *

(8)   Kòfí bé Ámá **dʒí** [bé   **Àkú nɛ̋**   dù nű].
      Kofi say Ama want COMP Aku JUSS eat thing
      'Kofi said Ama wants Aku to eat.'   want+full-NP+JUSS → OK

Subsidiary puzzle #2: When *dʒí* 'want' is replaced with *ká̧ḍóédʒí* 'believe', an embedded full-NP subject is grammatical with both *lá* and *nɛ̋* . . .

(9)   Kòfí bé Ámá **ká̧ḍóédʒí** [bé   **Àkú lá**   dù nű].
      Kofi say Ama believe   COMP Aku POT eat thing
      'Kofi said Ama believes that Aku will eat.'   believe+full-NP+POT → OK

(10)   Kòfí bé Ámá **ká̧ḍóédʒí** [bé   **Àkú nɛ̋**   dù nű].
       Kofi say Ama believe   COMP Aku JUSS eat thing
       'Kofi said Ama believes that Aku should eat.'   believe+full-NP+JUSS → OK

. . . and an embedded logophor under *lá* has free choice of antecedent, but an embedded logophor under *nɛ̋* induces obviation just as it does with *dʒí* 'want':

(11)   **Kòfí**$_1$ bé **Ámá**$_2$ **ká̧ḍóédʒí** [bé   **jè**$_{1/2}$ **lá**   dù nű].
       Kofi say Ama believe   COMP LOG POT eat thing
       'Kofi said Ama believes that he/she (= Kofi/Ama) will eat.'   believe+LOG+POT → AMBIG.

(12)   **Kòfí**$_1$ bé Ámá$_2$ **ká̧ḍóédʒí** [bé   **jè**$_{1/*2}$ **nɛ̋**   dù nű].
       Kofi say Ama believe   COMP LOG JUSS eat thing
       'Kofi said Ama believes that he (= Kofi) should eat.'   believe+LOG+JUSS → OBVIATION

      (and similarly for: *ɲá* 'know', *gblɔ̌* 'say', *kúùdr̃í̃í* 'dream')

3 The proposed solution in three stipulations

All of these puzzles can be accounted for with three stipulations:

(13)   **Stipulation #1:** A logophor has to be bound by an attitude predicate:
     a. Kofi say [Ama **believe** [λx. [**LOG**$_x$ eat]]]   OK
     b. Kofi **say** [λx. [Ama believe [**LOG**$_x$ eat]]]   OK
     c. Kofi say [Ama believe [LOG$_x$ eat]]   ungrammatical

(14)   **Stipulation #2:** $n\acute{\tilde{\varepsilon}}$ 'JUSS' triggers individual abstraction whereas *lá* 'POT' does not:
     a. [Kofi eat]$_{\langle st \rangle} \rightarrow$ [λx . Kofi JUSS eat]$_{\langle e, st \rangle}$
     b. [Kofi eat]$_{\langle st \rangle} \rightarrow$ [Kofi POT eat]$_{\langle st \rangle}$

(15)   **Stipulation #3:** *dʒí* 'want' can only combine with a property whereas *kádóédʒí* 'believe' can
     combine with either a proposition or a property:
     a. [[dʒí]] = λP$_{\langle e,st \rangle}\lambda$x$\lambda$w.$\forall$w' $\in$ BEST$_{desire}$(DOX(x,w)): P(x)(w') $\langle \langle e, st \rangle, \langle e, st \rangle \rangle$
     b. [[kádóédʒí]] = λp$_{\langle st \rangle}\lambda$x$\lambda$w.$\forall$w' $\in$ DOX(x,w): p(w') $\langle st, \langle e, st \rangle \rangle$
     b'. [[kádóédʒí']] = λP$_{\langle e,st \rangle}\lambda$x$\lambda$w.$\forall$w' $\in$ DOX(x,w): P(x)(w') $\langle \langle e, st \rangle, \langle e, st \rangle \rangle$

The core puzzle revisited:

(16)   want+LOG+POT induces control:
     a. Kofi say Ama [want$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [λx. LOG$_x$ POT eat]$_{\langle e,st \rangle}$] $\leftarrow$ *ok!*
     b. Kofi say [λx.Ama want$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [LOG$_x$ POT eat]$_{\langle st \rangle}$] $\leftarrow$ *mismatch!*

(17)   want+LOG+JUSS induces obviation:
     a. Kofi say Ama [want$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [$\lambda x \lambda y$. LOG$_x$ JUSS eat]$_{\langle e, \langle e,st \rangle \rangle}$] $\leftarrow$ *mismatch!*
     b. Kofi say [λx.Ama want$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [λy. LOG$_x$ JUSS eat]$_{\langle e,st \rangle}$] $\leftarrow$ *ok!*

Subsidiary puzzle #1 revisited:

(18)   want+full-NP+POT induces a mismatch whereas want+full-NP+JUSS does not:
     a. Kofi say [Ama want$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [Aku POT eat]$_{\langle st \rangle}$] $\leftarrow$ *mismatch!*
     b. Kofi say [Ama want$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [λx.Aku JUSS eat]$_{\langle e,st \rangle}$] $\leftarrow$ *ok!*

Subsidiary puzzle #2 revisited:

(19)   Type flexibility for 'believe' renders believe+full-NP+POT / believe+full-NP+JUSS both OK:
     a. Kofi say [Ama believe$_{\langle \langle st \rangle, \langle e,st \rangle \rangle}$ [Aku POT eat]$_{\langle st \rangle}$] $\leftarrow$ *ok!*
     b. Kofi say [Ama believe$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [λx. Aku JUSS eat]$_{\langle e,st \rangle}$] $\leftarrow$ *ok!*

(20)   Type flexibility also enables both binding options for believe+LOG+POT:
     a. Kofi say [λx. Ama believe$_{\langle \langle st \rangle, \langle e,st \rangle \rangle}$ [LOG$_x$ POT eat]$_{\langle st \rangle}$] $\leftarrow$ *ok!*
     b. Kofi say [Ama believe$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [λx. LOG$_x$ POT eat]$_{\langle e,st \rangle}$] $\leftarrow$ *ok!*

(21)   But even with type flexibility, believe+LOG+JUSS induces obviation:
     a. Kofi say [Ama believe$_{\langle \langle st \rangle, \langle e,st \rangle \rangle / \langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [$\lambda x \lambda y$. LOG$_x$ JUSS eat]$_{\langle e, \langle e,st \rangle \rangle}$] $\leftarrow$ *mismatch!*
     b. Kofi say [λx. Ama believe$_{\langle \langle e,st \rangle, \langle e,st \rangle \rangle}$ [λy. LOG$_x$ JUSS eat]$_{\langle e,st \rangle}$] $\leftarrow$ *ok!*

4 Revisiting the three stipulations

4.1 Stipulation #1: A logophor has to be bound by an attitude predicate

This idea is not new: see Pearson 2015 for motivation. Pearson attributes the idea to Heim 2002; von Stechow 2002, 2003.

4.2 Stipulation #2: nɛ̃́ 'JUSS' triggers individual abstraction whereas lá 'POT' does not

In unembedded contexts, *lá* 'POT' is typically used to express to express future possibility (22) (cf. Essegbey 2008) whereas *nɛ̃́* 'JUSS' is used to indicate a desire or priority:

(22) Kòfí **lá** ɖù nű.
Kofi POT eat thing
'Kofi will/might eat.'

(23) Kòfí **nɛ̃́** ɖù nű.
Kofi JUSS eat thing
'Kofi should eat.' / 'I want Kofi to eat.'

nɛ̃́ 'JUSS' is also found in contexts known cross-linguistically to support embedded imperatives:

(24) Kòfí dóòǔsɛ̃́ɛ̃ Àkú bé **nɛ̃́** ɖù nű.
Kofi encourage Aku COMP JUSS eat thing
'Kofi encouraged Aku to eat.'

Ameka (2008), investigating the cognate Ewe jussive particle *né*, provides some examples suggesting that it sometimes has an optative flavor:

(25) gbɔgbɔ vɔ̃́-wó **né**-do
spirit bad-PL JUSS-exit
'Let evil spirits come out.' (Ewe, Ameka 2008)

We take this priority-oriented, optative-like status to be highly suggestive that *nɛ̃́* is in the same family of morphemes identified by Zanuttini, Pak, and Portner (2012) (henceforth ZPP12) as jussives, which for them include imperatives, promissives, exhortatives, and (possibly) optatives:

(26) Cemsim-ul sa-**la**.
lunch-ACC buy-IMP
'Buy lunch!' (Korean imperative)

(28) Cemsim-ul sa-**ca**
lunch-ACC buy-EXH
'Let's buy lunch.' (Korean exhortative)

(27) Cemsim-ul sa-**ma**.
lunch-ACC buy-PRM
'I will buy lunch.' (Korean promissive)

(29) kʰa:y
eat-IMP.3SG
'Let him eat.' (Bhojpuri optative)

ZPP12 propose that jussives are individual abstractors that typically bind the subject and impose a person restriction on it:

(30) For any phrase XP,
$[[\text{JUSS}[\text{person: } v]_k \text{ XP}]]^{g,c} = [\lambda x : x = [[[\text{person: } v]_k]]^{g,c} \cdot [[\text{XP}]]^{g[k \to x],c}]$ (ZPP12:1265)

A proposal for fitting optatives into this setup: Optatives induce individual abstraction but without any binding or person restriction (cf. ZPP12:note 30 for a different approach, due to P. Grosz).

(31) $[[\text{Kofi JUSS eat}]]^{g,c} = [\lambda x. \text{ Kofi eat}]$

Guiding idea: The status of the utterance as a property has the pragmatic effect of endowing it with a "world-to-word" direction-of-fit, but the lack of binding or person restriction means that it is not directed at any particular participant's To-Do List.

4.3 Stipulation #3: dʒí *'want' can only combine with a property whereas* kádóédʒí *'believe' can combine with either a proposition or a property*

This proposal goes against the recent grain of treating *all* clauses (embedded or not, controlled or not, *de se* or not) in a type-theoretically uniform way, whether as propositions (Stephenson 2010) or as properties (Pearson 2013).

But it is not a new idea either: Dowty (1985) proposes that non-control complements are proposition-denoting whereas control complements are property-denoting, so that some embedding verbs are type $\langle st, \ldots \rangle$, others type $\langle \langle e, st \rangle, \ldots \rangle$, and others $\langle st, \ldots \rangle / \langle \langle e, st \rangle, \ldots \rangle$-flexible.

If we extend the property analysis of jussives to infinitives and subjunctives as well, there is cross-linguistically support for the type-theoretical rigidity of 'want' and flexibility of 'believe':

(32)   a. John **wants** [Bill **to be** happy].
         b. *John **wants** [that Bill **is** happy].   'want' → infinitive only

(33)   a. John **believes** [Bill **to be** happy].
         b. John **believes** [that Bill **is** happy].   'believe' → infinitive or finite complement

(34)   Juan **cree** [que Pedro **es** feliz].
         'Juan thinks that Pedro is.INDIC happy.'   Spanish 'believe' → indicative

(35)   Gianni **crede** [che Pietro **sia** felice].
         'Gianni thinks that Pietro is.SBJV happy.'   Italian 'believe' → subjunctive

(36)   Juan **quiere** [que Pedro **sea** feliz].
         'Juan wants that Pedro is.SBJV happy.'   Spanish 'want' → subjunctive

(37)   Gianni **vuole** [che Pietro **sia** felice].
         'Gianni wants that Pietro is.SBJV happy.'   Italian 'want' → subjunctive

We can encode these subcategorization facts as follows:

Denotations for embedding verbs:

(38)   [[want]] = $\lambda P_{\langle e,st \rangle} \lambda x \lambda w. \forall w' \in \text{BEST}_{desire}(\text{DOX}(x,w)): P(x)(w')$ $\langle \langle e, st \rangle, \langle e, st \rangle \rangle$

(39)   a. [[believe]] = $\lambda p_{\langle st \rangle} \lambda x \lambda w. \forall w' \in \text{DOX}(x,w): p(w')$ $\langle st, \langle e, st \rangle \rangle$
         b. [[believe′]] = $\lambda P_{\langle e,st \rangle} \lambda x \lambda w. \forall w' \in \text{DOX}(x,w): P(x)(w')$ $\langle \langle e, st \rangle, \langle e, st \rangle \rangle$

Denotations for complements:

(40)   Infinitives/subjunctive clauses
         a. [[Bill to be happy]] = [$\lambda x \lambda w$. Bill is happy in w] $\langle e, st \rangle$
         b. [[PRO to be happy]] = [$\lambda x \lambda w$. x is happy in w] $\langle e, st \rangle$
         c. [[Pedro sea feliz]] = [$\lambda x \lambda w$. Pedro is happy in w] $\langle e, st \rangle$

(41)   Finite indicative clauses
         a. [[Bill is happy]] = [λw . Bill is happy in w] $\langle st \rangle$
         b. [[Pedro es feliz]] = [λw . Pedro is happy in w] $\langle st \rangle$

We intend this as an *implementation* of a theory of mood choice, not as a *replacement* for existing proposals about what semantic properties characterize indicative- vs. subjunctive-selecting verbs.

5 Harmonic modality?

It is crucial to our analysis that *nɛ̃́* 'JUSS' adds an individual argument as in (42), which a ZPP12 'individual abstractor' analysis of jussives readily provides.

(42) $[\text{Kofi eat}]_{\langle st \rangle} \rightarrow [\lambda x \, . \, \text{Kofi JUSS eat}]_{\langle e,st \rangle}$

But our analysis would also be compatible with the view that *nɛ̃́* has more content than this.

In particular, it is also conceivable to analyze it as a priority modal, where the individual argument helps determine the worlds that are quantified over:

(43) $[[\text{nɛ̃́}]] = \lambda p_{\langle st \rangle} \lambda x \lambda s. \forall w' \in \text{PRIORITY}(x,s): \exists s' \, [s' \leq w' \wedge p(s')]$
        where $\text{PRIORITY}(x,s) = \{\forall w \mid w \text{ is compatible with } x\text{'s priorities in } s\}$

This could then be coupled with a non-modal analysis *dʒí* 'want' (44) to achieve a Kratzer 2013-style decompositional 'neo-Davidsonian' approach to attitude reports (45) (cf. also Moulton 2009; Moltmann 2014; Bogal-Allbritten 2016; Grano 2016):

(44) $[[\text{dʒí 'want'}]] = \lambda P_{\langle e,st \rangle} \lambda x \lambda s. \text{want}(s) \wedge \text{EXPERIENCER}(s) = x \wedge P(x)(s)$

(45) $[[\text{Ama want COMP Aku JUSS eat thing}]] =$
        $\exists s \, [\text{want}(s) \wedge \text{EXPERIENCER}(s) = \text{Ama} \wedge \forall w' \in \text{PRIORITY}(\text{Ama},s): \exists s' \, [s' \leq w' \wedge \text{Aku eats in } s']]$
        'There is a state s, s is a wanting whose experiencer is Ama, and all those worlds compatible with Ama's priorities in s are worlds in which Aku eats.'

On this analysis, (45) instantiates the same kind of HARMONIC MODALITY that Kratzer (2013) points to in motivating her approach to embedding:

(46)   It seems to us entirely **desirable** that there **ought to** be a constitutional amendment. (Kratzer 2013:slide 17)

(47)   The urgency of the situation **requires** that the dig **must** continue regardless of the weather and comfort. (Kratzer 2013:slide 18)

Possible source of cross-linguistic support: Obviative 'should' in Yiddish and Yiddish English:

(48)   Ikh **vil** er **zol** geyn.
        1SG want 3SG should go
        'I want him to go.' (Yiddish, Sadock 2012)

(49)   You **want** I **should** help you?
        (see discussion at http://languagelog.ldc.upenn.edu/nll/?p=11847)

In these examples, 'should' resembles Gengbe *nɛ̃́*. If they are to have the same analysis, then either 'should' in these examples does not have a modal semantics (!), or Gengbe *nɛ̃́* does have a modal semantics.

6 Conclusions

Central conclusion: A property analysis of Gengbe jussive clauses helps make sense of an otherwise puzzling interaction between embedding verb choice, mood choice, and antecedent choice for logophors.

Taking a step back: If we are correct in extending the property analysis to subjunctive clauses and infinitives cross-linguistically, why do we not see the same kind of puzzle in more familiarly studied languages?

We think it is because Gengbe has two properties not typical among better studied languages:

1. Logophoric pronouns

2. Full (finite, non-truncated) clauses as complements to verbs like 'want'

It is only when these two properties co-occur that we see the puzzles of interest.

A secondary theoretical point: It is also due to these two properties that we see in Gengbe the recruitment of logophoricity to achieve syntactic control (possibly evidence against Landau's 2015:38 claim, following Culy 1994, that logophors never occur in obligatory control complements).

(50)   Kòfí$_1$ bé **Ámá$_2$ dʒí** [bé   **jè**$_{*1/2/*3}$ **lá**   ɖù nṹ].
        Kofi   say Ama   want COMP LOG   POT eat thing
        'Kofi said Ama wants to eat.'   (repeated from (5) above)

This point is consonant with the recent trend in control theory of not viewing controlled subjects as instantiations of a dedicated pronoun PRO but instead as a species of expression that has wider grammatical currency such as minimal pronouns (Kratzer 2009; Landau 2015) or A-traces (Hornstein 1999) that interact with the other pieces of the sentence to give rise to control.

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A Appendix: Additional data and puzzles

A.1 'want' > 'say' embeddings

Our core data in section 2 consisted of 'say' > 'believe' and 'say' > 'want' embeddings, but our analysis also makes predictions about other kinds of embedding configurations such as 'want' > 'say'. These predictions are borne out in the following data:

(51)   Kòfí **dʒí** bé   Ámá **nɛ̃́/*lá**   **gblɔ̀** bé   Àkú dù nṹ.
Kofi want COMP Ama JUSS/*POT say   COMP Aku eat
'Kofi wants Ama to say that Aku ate.'   (want+full-NP+JUSS/*POT)

(52)   Kòfí **dʒí** bé   Ámá **nɛ̃́** **gblɔ̀** bé   **jè**   dù nṹ.
Kofi$_1$ want COMP Ama$_2$ JUSS say   COMP LOG$_{1/2}$ eat
'Kofi wants Ama to say that Aku ate.'   (say+LOG: ambig.)

(53)   Ámá bé Kòfí **dʒí** bé   **jè**   **nɛ̃́** **gblɔ̀** bé   Àkú dù nṹ.
Ama$_1$ say Kofi$_2$ want COMP LOG$_{1/*2}$ JUSS say   COMP Aku eat
'Ama said Kofi wants Ama to say that Aku ate.'   (want+LOG+JUSS: obviation)

(54)   Ámá bé Kòfí **dʒí** bé **jè**   **gblɔ̀** bé   Àkú dù nṹ
       Ama_1 say $Kofi_2$ want COMP $LOG_{*1/2}$ POT say   COMP Aku eat.
       'Ama said Kofi wants to say that Aku ate.'   (want+LOG+POT: control)

A.2 Object-position logophors

The facts change when we turn to object-position logophors. Object-position logophors exhibit ambiguity in antecedent choice not only under 'believe' (55) but also under 'want' (56), against the expectations of our analysis. They also pattern unlike subject-position logophors in that they do not enable POT mood under 'want' (57).

(55)   **Kòfí**₁ bé **Ámá**₂ **kã́ɖóédʒí** [bé   Àkú₃ **lá**   kpɔ́ **jè**₁/₂/*₃].
       Kofi say Ama believe   COMP Aku POT see LOG
       'Kofi said Ama believes that Aku will see him/her (= Kofi/Ama).'

(56)   **Kòfí**₁ bé **Ámá**₂ **dʒí** [bé   Àkú₃ **nɛ̃́**   kpɔ́ **jè**₁/₂/*₃].
       Kofi say Ama want COMP Ama JUSS see LOG
       'Kofi said Ama wants Aku to see him/her (= Kofi/Ama).'

(57)   ***Kòfí** bé **Ámá dʒí** [bé   Àkú **lá**   kpɔ́ **jè**].
       Kofi say Ama want COMP Ama POT see LOG
       Intended: 'Kofi said Ama wants Aku to see him/her.'

The facts are consistent with the view that object-position logophors, unlike subject-position logophors, are bound by DPs rather than by attitude predicates. But this would be an unattractive complication to the theory.

A.3 The jussive person restriction

In unembedded contexts, JUSS is unacceptable with a first-person subject:

(58)   ****mṹ̀ nɛ̃́** dù nṹ.
       1SG JUSS eat thing
       Intended: 'I should eat.'

This seems like the unembedded analogue of the obviation effect: *nɛ̃́* signals that the subject is obviative with respect to the local attitude holder, and in unembedded contexts, the local attitude holder is the speaker. Curiously, though, the same restriction is found in embedded contexts, regardless of the choice of embedding predicate:

(59)   *$Kòfí_1$ bé **mṹ̀ nɛ̃́** dù nṹ.
       Kofi say 1SG JUSS eat thing
       Intended: 'Kofi said I should eat.'

(60)   *$Kòfí_1$ kã́ɖóédʒí bé   **mṹ̀ nɛ̃́** dù nṹ.
       Kofi believe   COMP 1SG JUSS eat thing
       Intended: 'Kofi believes I should eat.'

(61)   *$Kòfí_1$ dʒí bé   **mṹ̀ nɛ̃́** dù nṹ.
       Kofi   want COMP 1SG JUSS eat thing
       Intended: 'Kofi wants me to eat.'

We leave this as an open puzzle.